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## Interaction themes in music therapy

*definition and delimitation*

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# Interaction Themes in Music Therapy: Definition and Delimitation

Ulla Holck

## Abstract

*Based on a doctoral study, the author presents a type of music therapy interaction called 'Interaction Themes.' These are developed from session to session and often appear in music therapy interventions with children with severe functional limitations, especially children with autism. Although the Interaction Themes are characterised by a relatively simple and self-generated content, they have an essential function because they contain the child's and music therapist's joint interaction history. They make up the context within which it is possible to create meaningful interaction with a client group whose expressions are often difficult to understand. The article describes the characteristics and functions of Interaction Themes, compares the phenomenon with music therapy case literature and delimits it in regard to other types of music therapy interaction with this client group. The results are described through qualitative analysis methods applied to clinical video material, including member checking, negative case analyses, and pattern-generalisation.*

*Keywords: children, autism, severe functional limitations, interaction, context, and meaningfulness.*

## Introduction

In music therapy interventions for children with severe functional limitations, including children with severe autism, one of the primary goals is to develop the children's ability to participate in social interaction and communication (Nordoff & Robbins, 1977; Alvin, 1978; Robarts, 1998; Schumacher, 1999). This can happen on many levels, depending on the degree of severity of the children's functional limitations, as well as their chronological and mental age (Wigram, 1999).

Research has proven that music therapy has a

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positive effect in helping children with severe communication difficulties to improve their capacity for social and pre-verbal skills such as response, initiative, turn-taking, imitation and vocalisation (Müller & Warwick, 1993; Bunt, 1994; Edgerton, 1994; Aldridge et al., 1995; Plahl, 2000; Elefant, 2002).

While often the relative quantity of communicative behaviours increases, it can still be hard for the therapist to interpret and respond to them as such in an ongoing interaction. Analysis of interactions between adults and young handicapped children (among others those with autism and Down's Syndrome) show that even the child's own parents can have problems in understanding responses because of their frequently weak, random, or ambivalent character (see Rogers, 1988 for a review). At worst the problem is twofold: the child shows no sign of understanding the adult's initiative, and the adult cannot read the child's reactions as meaningful because they seem to occur without context.

Developing an isolated child's desire and ability to engage in communication requires creating an interaction form that both partners find meaningful and enjoyable (Klinger & Dawson, 1992; Schuler et al., 1997). At moments when this succeeds, both partners seem to perceive and follow each other's actions, and a mutual and playful interaction can be created (Rogers, 1988). In this way, meaningfulness refers to interactions where *both partners contribute to the continuation of the interaction* because it seems to be meaningful to do just that – even when we cannot know what precise meaning the interaction has for the child.

From this perspective, *one* reason for music therapy's capacity to engage these children could be the way it can facilitate the creation of frameworks for meaningful interaction. In a qualitative doctoral study involving video analyses of music therapy interventions with this population (Holck, 2002), I explore some of the conditions through which this happens, combined with extended micro analyses of patterns of interactions, showing mutuality, expectations, and

other signs of meaningful interactions.

The background for this is an interest in seeing movement from no interaction to a kind of mutuality in work with this population. Theoretically, my approach is informed by communication theories and infant research, pointing out the importance of a *joint context* (e.g., Littlejohn, 1999) understood as a *joint interaction history* (Stern, 1989) as a basis for meaningful interaction. In music therapy these points are strongly emphasised by Even Ruud (1990), who highlights the gradual development of (private) codes between client and therapist as one of the assumptions for a meaningful interaction. The music therapy case literature gives lots of examples of gradually developed short repeated musical forms or motifs having a central position in courses of music therapy with children with severe communication difficulties, most often children with autism (Nordoff & Robbins, 1977; Alvin, 1978; Birkeback & Winther, 1985; Agrotou, 1988; Lecourt, 1991; Friis, 1993; Brown, 1994; Bunt, 1994; Howat, 1995; Wigram, 1997; Robarts, 1998; Di Franco, 1999; Schumacher, 1999; Oldfield, 2001).<sup>1</sup>

The findings from my doctoral study presented here correspond well with this case literature, but at the same time offer a more broad way of understanding the motifs as frameworks for meaningful interaction, called Interaction Themes (Holck, 2002). The article focuses on this part of the research only, leaving the micro-analyses out. Since I believe the issue to be relevant for many clinicians, the article includes case vignettes from the material rather than purely documenting the findings.

## Method

To investigate the research question, a qualitative descriptive approach was used within a multiple case design. Video recordings were made of five music therapists' work with six children with severe functional limitations, three of whom had a diagnosis within the autistic spectrum. The

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<sup>1</sup> See (Holck 2002 pp. 93-137) for an extended literature review.

therapists were primarily trained in the analytic tradition (Priestley, 1994). For each child, four sessions were recorded, and in all cases music therapy interventions had been running for some time. This material formed the main data (together with therapist interviews), from which samples were subsequently selected for more detailed analysis.

The choice of samples was made from the identifiable interaction history between the child and therapist in the form of observable expectations on the part of the child and therapist within the interaction. Review of the video recordings resulted in the identification of specific sequences of four-five minutes length, where the musical material had a simple and self-generated character. Furthermore, the children themselves initiated these sequences, or were very active and showed signs of recognition and mastering. Through systematic video analyses, including a comparison of the sequences, it became possible to define and delimitate Interaction Themes within the interaction.

For the analysis of the sequences several qualitative analysis methods were used (Alvesson & Sköldberg, 1994; Lincoln & Guba, 1985; Silverman, 1994), adapted to the existing data material. The part of the analysis from which I present results here includes cross-comparative analyses, where the Interaction Themes found in the material are compared across time, place, and persons in the material and later related to existing music therapy case literature (*pattern-generalisation*). Parts of the data material that do not completely concur with the found patterns are considered and discussed (*negative case analysis*) and through interviews the music therapists' response is added to the analysis (*member check*) (Lincoln & Guba, 1985).

## Results

The analyses of the video recordings show four well-developed Interaction Themes that are presented below. In the fifth case, the development of an Interaction Theme did not seem to be either possible or important. This

example is presented as a 'negative case' (see above) as part of defining the delimitation of the Interaction Theme as a clinical phenomenon, and will be discussed later. In the sixth case, which is not included here, there were signs of an emerging Interaction Theme, which took form shortly after the time of recording.

### Interaction Themes as Clinical Findings

Analysis of first subject in the study, called *Karsten*, gives the first example of an Interaction Theme. Karsten is a 9-year-old hyperactive boy with infantile autism and severe mental retardation. Verbally, his developmental age is assessed to be 8 months, while in other areas it is deemed higher. At the time of recording he has been attending music therapy for two years.

On the video we see Karsten come into the room and go straight to a large drum – a so-called drum table. He plays a few energetic amorphous beats while he and the music therapist sit opposite each other. When the therapist's gestures communicate that she is ready, Karsten changes his beats and starts playing a small rhythmic motif, whereupon the therapist plays a complementary rhythm (see table 1, example 2).

Their interaction is built around Karsten's small rhythmic motif, as the motif provides a secure interaction basis and a kind of bridge between short improvisational events. For example, Karsten often interrupts the interaction with pronounced tempo changes or by fingering the drumskin, after which the therapist stops playing. In light of Karsten's pathology and normal behaviour, this can be expected. The point is that each time he returns to his small motif, often in the original tempo, the interaction can continue.

Generally Karsten is not very visually aware of others, but in these situations he glances over at the therapist, or her hands, possibly in anticipation of her impending participation. While this interpretation is speculative, the therapist nevertheless reacts very quickly to these small cues. At one point, she breaks into a big smile, when Karsten, after having completed a short solo, makes a vocal sound and a single beat towards the middle of the drum. She clearly sees this as a kind of invitation (turn giving) to start playing

again. Inversely, Karsten reacts several times to the therapist's initiatives by short "outbursts" on the drum, for example when she begins to sing or imitates his playing style.

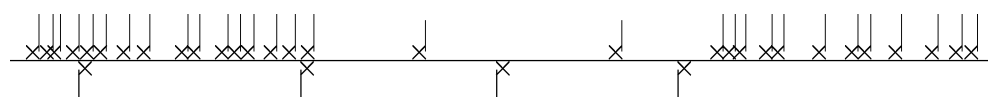
Seen from the outside, there is no doubt that the two of them have a series of expectations to the interaction, built up from session to session. Whether or not Karsten has intersubjective expectations of the music therapist as a person is not known, but on the other hand he shows clear expectations to the music and actions ("this is what we usually do together").

The sequence with this Interaction Theme occurs at the beginning of the sessions and lasts about five minutes. After this, Karsten ends it by running over to another instrument. Compared to the rest of the session, the time spent at the drum table is generally when Karsten is most socially active for the longest time.

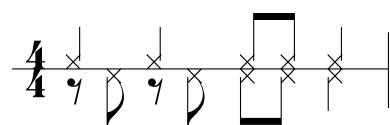
As a part of member checking, I interviewed the therapist about the development of the Interaction Theme, and its significance for the therapy. She explained that during the first

sessions Karsten had wandered aimlessly around the room, playing all of the instruments. A few times he had reacted to her initiatives, but only sporadically. When she acquired the drum table, Karsten went straight to the drum, and played with great enthusiasm. Instead of trying to match his "chaotic wall of sound", she placed a single loud beat in the middle of all his sound. Later in the same session, Karsten stopped and made a single beat after the therapist's beat, subsequently repeated once, before playing chaotically again (table 1, example 1). Contrary to other moments of contact between them, this happened again in the following session, identifying *for the first time something the therapist came to rely on* from session to session. After a few sessions, Karsten began to initiate this turn interaction and an emerging mutuality in interaction was born.

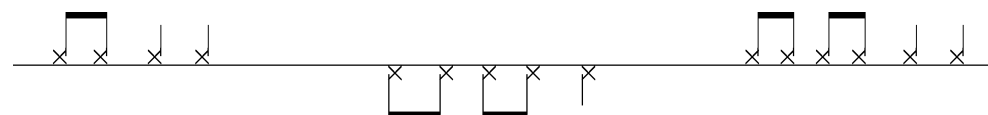
The recurring turn interaction naturally held great significance for the therapy. Gradually the interaction chains became longer, and the small rhythmic motif described above was developed. While in the beginning there were small, sporadic



Example 1: Karsten's Interaction Theme approximately one year before time of recording



Example 2: Karsten's Interaction Theme at time of recording



Example 3: Karsten's Interaction Theme approximately one year after recording

**Table 1:** The development of Karsten's Interaction Theme

islands of interaction in an otherwise chaotic wall of sound, at the time of recording an ongoing interaction between them was possible, with only short interruptions by Karsten.

About a year later, their interaction had developed further to the extent that they took turns playing different short rhythmic motifs, while the other person waited (table 1, example 3). Compared to the early form, this was a much more advanced turn interaction with imitations and variations in Karsten playing, as well as turn lengths that matched the therapist's. This means that Karsten understood both how to wait for the end of the therapist's turn and how to limit his own playing, which is a great contrast to the "chaotic wall of sound" that characterised the first many sessions.

#### **Definition of Interaction Themes as a Clinical Phenomenon**

Similar sequences could be found in the recordings of music therapy with three other children (see below). Contrary to Hello and Goodbye songs that often are of a conventional character and typically are presented by the music therapist, these sequences bear the mark of a particular child and therapist's cooperation. Often it is the child who initiates the sequence, as it frequently occurs during the beginning phase of a session when the intensity of interaction is relatively high.

On the surface the four sequences are very different – the children are different, just as the music therapists each have their own personal and professional backgrounds. When comparing the underlying structure and function of these sequences, there are, however, common characteristics that prompted me to develop and delimit Interaction Themes as a clinical phenomenon with this client group. *Interaction* pertains to those aspects having to do with the actions, while *Theme* pertains to the content of those actions. The term 'theme' is not to be understood in the musicological sense, but rather as an interwoven structure of musical figures and movement, creating a theme for interaction.

Table 2 presents four central characteristics of Interaction Themes. Points 1 and 2 describe the

content of Interaction Themes and their development, while points A and B describe their function and significance in the interaction between child and therapist.

As it appears, an Interaction Theme is both a result of a joint interaction history that develops gradually between child and therapist and at the same time a frame for the continued interaction between them. This offers a perspective from which to understand music therapy interaction with these children, inspired by Ruud (1990) and Stern:

Relationships are the cumulative constructed history of interactions, a history that bears on the present in the form of expectations actualised during an ongoing interaction, and on the future in the form of expectations (conscious or not) about upcoming interactions (Stern, 1989, pp. 54-55).

Commonly one says that the music therapist's knowledge of the child is important for the therapeutic process. But by focusing on a joint interaction history created by both, I point out that the knowledge goes both ways, so that the child also has expectations towards the therapist – and that these are created through joint actions.

As in the example of Karsten, the joint interaction history can be seen through their mutual reactions. This made it possible for the music therapist to react to even very small signs from Karsten as being socially directed to her, and even this very severely autistic boy smiled when she imitated him, glancing (expectantly?) in her direction just before she imitated or reacted to his initiatives. In this way a joint interaction history created a context for the interaction that made meaningful continuation possible (point B).

#### **Applying the Definition of Interaction Themes**

Analyses of three other subjects in the study show the breadth of form and function in the Interaction Themes.

*Mikkel* is a 5-year-old boy with a diagnosis of atypical autism (according to ICD-10) and general retardation. At the time of recording he can say ten words, among others "Two" and "Music."

### Content of Interaction Themes and Their Development

- 1 An Interaction Theme is built up around a specific musical figure (for example a rhythmic motif or break) that is *repeated and varied*, depending on the child's ability to register or create varied expressions. Often a particular movement, gesture, or facial expression is connected to the Interaction Theme, and often this is just as fundamental to the interaction as the musical figure.
- 2 An Interaction Theme arises out of joint improvisation between child and music therapist over a course of time and develops continuously. Although the structure in itself is simple, the Interaction Theme has its own personal form, created by the child and the music therapist in co-operation. In this way, the Interaction Theme affirms a *joint (implicit) interaction history* that bears the stamp of both partners.

### Function of Interaction Themes and the Significance for the Interaction

- A The joint interaction history results in both the child and the music therapist having *expectations* regarding the interaction. These expectations can have to do with actions or music at a purely functional level, or they can also be at an intersubjective level. Expectations make it possible to recognise a *departure from the expected*, and thus the child will recognise humour, building of intensity, surprise, teasing, frustration, or aversion, depending on his/her intersubjective development.
- B Essentially, an Interaction Theme makes it easier for the child to act socially, in a way that may be perceived by the music therapist. The music therapist's reactions will then match the child's initiatives more, which in turn increases the child's possibilities for understanding them. In this way the Interaction Theme creates a common structure for the interaction between partners that make it easier for both to perceive and understand the other's actions as meaningful. This supports the social or affective non-verbal cues that *keep the chain of interaction going*.

**Table 2:** Definition of Interaction Themes. (For elaboration and discussion see Holck, 2002, pp. 15-51 and pp. 179-264.)

Compared to Karsten, he is less socially withdrawn, but on the other hand he gets very passive if not stimulated vigorously, for example physically. During the first sessions Mikkel didn't react at all to the therapist's initiatives. His first move was to climb up on a trampoline and jump in a sitting position, which the therapist accompanied with a Swedish dance melody that she later only used during these sequences. When Mikkel stopped jumping every now and then, the therapist also stopped playing, but it took a long time before Mikkel showed signs of understanding the connection. However, gradually he did start to point at the piano after climbing onto the trampoline, and later he also said "Music"!

After a few months of sessions, the therapist began to make sudden breaks in the music, to see what would happen. After a few sessions Mikkel reacted, and subsequently the therapist could *rely on* Mikkel stopping when she made a break in the melody. At the time of recording (after nine months of music therapy), an Interaction Theme has developed, where the therapist makes her sudden break, and Mikkel then stops jumping and says "Two" (his cue to start the music again). The Interaction Theme is robust enough for the therapist to 'tease' by not starting immediately, after which Mikkel smilingly repeats his "Two" and starts jumping again.

Compared to Karsten, Mikkel's visual cues are much easier to read, and although his use of the word "Two" is idiosyncratic, it does have a conventional character. Still, it was through the development of just this Interaction Theme that the interaction began to have a mutual and thus meaningful character. Once Mikkel had formed expectations to the interaction, he could react meaningfully to the therapist's diversions, such as her teasing (point A).

It was only on the trampoline that the therapist achieved such meaningful interaction with Mikkel. Apparently the movements, music and the sudden breaks gave him the arousal that was necessary for his continual interest and active participation in the interaction (point B).

The third example of an Interaction Theme is from a case of a 13-year-old girl *Mette* with severe

mental retardation and severe autistic features. This girl had some language skills, but was prone to echolalia. In music therapy with Mette, an Interaction Theme was developed where the girl and the music therapist took turns saying "EEE" on a rising or falling glissando, while stroking the other one's hair or cheek. The glissandi had a prosodic character that can be described as inviting, inquiring, wondering, stating, etc.

Compared to the other Interaction Themes, this one is very unique, and has its own development history, that is too extensive to be described here (according to Mette's mother, Mette only makes these glissandi in music therapy). The Interaction Theme bears the mark of these two specific persons and their interaction, where the therapist has been especially sensitive to Mette's initiatives and ideas, and given them interactional meaningfulness.

The last example is from music therapy with a 2 ½-year-old boy *Eigil*, with general mental retardation but without autistic features. Eigil was referred to music therapy because he showed no interest in communicating and could become confused and bite himself when others approached him. In music therapy, however, Eigil and the therapist very quickly developed a solid Interaction Theme that ensured the development of Eigil's communicative potential.

As with Mikkel, movement had great importance for Eigil. As soon as he sat on a space hopper (a large rubber ball), he began to make sounds of delight. His sounds were without pauses, so the therapist began to interrupt Eigil after three jumps/glissandi, first by stopping his movement and later vocally. Soon Eigil got the idea, and after only five sessions (at the time of recording), they took turns singing a short three-note melodic motif with an accent on the last note. They began to use different vocal sounds, and after six months Eigil was singing along with hits on the radio, getting quite a few of the words.

As it appears, Eigil's social and communicative potential was much greater than the other children's described above. (I haven't yet shown the sequence with Eigil to anyone who didn't find infectious his spontaneous enthusiasm for jumping and singing with the therapist.) Still, it



was only through the development of an Interaction Theme that he and the therapist could meet in a meaningful way and thus ensure the development of this potential.

As a whole these examples show that Interaction Themes as a clinical phenomenon can be generalised across four cases of music therapy with different children and music therapists. The development of the Interaction Themes happened within different time spans. With Karsten, who had the most severe diagnosis, it took about a year, but after that the Interaction Theme developed quite extensively, in the light of this boy's severe communicative difficulties. In contrast, it took only five sessions with Eigil, but was then dissolved again after having fulfilled its role later on (see below).

## Discussion

The identification and analysis of Interaction Themes in the material raises some interesting points for discussion. In particular, searching for comparative examples in the literature helps support the definition and clarification of what an Interaction Theme is, and how it occurs. This is a way of contextualising the findings from my own study and the conclusions I have been able to draw by correlating with previous clinical examples. While the music therapists in this study are primarily trained in the analytic tradition, the music therapy literature reports the phenomena of Interaction Themes to be present in many models of improvisational music therapy. In the following examples from Creative Music Therapy and Orff Music Therapy this is presented in some detail before a more overall discussion.

### Interaction Themes Related to the Literature: The Case of Edward

The first example from the music therapy literature is from Nordoff and Robbins' classic case of 5-year-old *Edward*. It is described in *Creative Music Therapy* from 1977 and illustrated with cassette tape recordings. Many music therapists have been inspired by this case, which can be seen by the series of articles in the *Nordic Journal of Music Therapy* (1998-2000). In these articles,

the focus is primarily on the first session of the Edward case. In contrast, I will focus on the later sessions, where a Hello-theme gradually is developed between Edward, Paul Nordoff, and Clive Robbins. The development of the theme is described in Nordoff and Robbins' book (1977), and can be heard on the tape recordings from the ninth session (called example 3a-3i on the tape).

The sequence that includes what I see as an Interaction Theme is begun by Edward (by his own initiative) leading Clive to a bench, climbing up on it, and then up into Clive's lap (Nordoff & Robbins, 1977, pp. 31-32). Where he got this idea is not explained in the text, but from this position Edward is able to sustain a vocal dialogue with Paul based on a *two-note motif* on "A-wo" (Hello). The Interaction Theme apparently found its form from the 7th session, but according to the text, there were signs of the theme starting earlier on.

In the first tape excerpt (3a) from the ninth session, one hears Paul playing and singing a welcome song, "Good-morning," in a flowing style. Suddenly Edward sings a distinct "A-wo" on the 6th-5th tone of the scale, and a small song dialogue between Edward and Paul emerges. In a later example (3f), Edward sings a new rhythmic motif, a three-note rising motif on staccato-EEE sounds, and after a song dialogue with the new motif, *Edward returns to his two-note descending motif* on "Awo." This is all repeated, but now with four notes (3g). The new motifs make up a kind of variation section, where Edward and Paul *return afterwards to the familiar "Awo"-motif* (a kind of rondo).

What is so fascinating about this case is first the interaction between Edward's initiatives and Paul's ability to 'seize' them musically so that a dialogue can emerge, and second Edward's way of using Clive, so that he can receive physical holding. For, although the Interaction Theme has the disadvantage that it requires a strong man capable of holding a very active 5-year-old for longer periods of time, it is fascinating to see how Edward provides for himself what he needs.

Regarding the four characteristics of Interaction Themes that I have listed in table 2, this is clearly an example of a repeated motif that Edward returns to, supplemented by a specific

gesture or bodily position (point 1). In addition, it is an Interaction Theme that bears the mark of all three persons, so that it has a personal form (point 2). Edward shows signs of musical expectation very quickly (point A), as heard in his variations followed by the “Awo”-motif. In the Edward case, Nordoff and Robbins do not refer to the expectation aspect, perhaps because of Edward’s bright musical apprehension. But generally, they stress the importance of repetition for creating security and forming the musical relationship. Correspondingly, also in the Edward case, Nordoff and Robbins do not address some of the aspects I refer to in point B, probably because they find Edward relatively easy to read. In other case descriptions, however, they describe children whose reactions seem so chaotic and unclear that understanding what they are expressions of can be difficult. But as soon as there are themes that the child remembers and expects it becomes easier to understand his/her expressions (see for example Nordoff & Robbins, 1971, p. 55).

It appears, then, that there are several similarities between these points and the four criteria I have listed for Interaction Themes. On the other hand, there are, of course, many aspects of Nordoff and Robbins’ extensive work that cannot be described as Interaction Themes, for example because the child has the ability to use more conventional musical activities, such as songs, as discussed later. With regard to children with serious communication difficulties, Kenneth Aigen, in his research on Nordoff and Robbins’ work, names several examples of small musical games, themes, song and working motifs (Aigen, 1998, p. 234). Some of these are similar in content and function to Edward’s “Awo”-motif – for example Walker’s “signature pattern” (p. 134), while others are made up of small sentences sung to the child to evoke a response, for example “Where is Terry?” or “Beat the drum!” (p. 86). Where the first types of interaction can be described as Interaction Themes, the last ones are a part of a set of response-evoking techniques that normally characterise the beginning of music therapy with this group of children.

In practice, these two types of interaction are of course not precisely separated, and it is not

until the child is actively creative, that one can speak of an Interaction Theme. (As the sudden break in Mikkel’s music therapy didn’t become an Interaction Theme until he had contributed to the forming of it.) Where response-evoking techniques primarily are guided by the adult’s wish for response, with an Interaction Theme, mutuality increases. In my empirical material, it was the children, who initiated the Interaction Theme (just as Edward did), and the joint interaction history gave the interactions a quality of mutual knowledge and expectation. Phenomenologically speaking these are, therefore, two quite different kinds of interaction.

With this delimitation in mind, there is no doubt that many Interaction Themes appear in the work of Nordoff and Robbins. Edward’s “Awo”-motif is a clear example, and at the same time it is fascinating, seeing that the interaction took place between two music therapy pioneers and a little boy in Pennsylvania forty years ago!

#### **Interaction Themes Related to the Literature:**

##### **The Case of Max**

The second example of an Interaction Theme comes from the Orff-based German music therapist Karin Schumacher, who has worked with autistic children for many years. The example is from the case of *Max*, whom Schumacher has described in detail in her first book from 1994, and who also is seen in the video accompanying her latest book from 1999.

Max is 7 years old and has a diagnosis of infantile autism and mental retardation. His only verbal expression is “Mama,” and communicative initiatives happen without eye contact. After two years of therapy, Max and Karin develop interaction, where Max swings back and forth in a large hammock. He sits on the side of the hammock, while Karin stands beside him and guides the hammock’s movements with a rope (Schumacher & Calvet-Kruppa, 1999, video I, modus 5). The hammock is parallel to a wall, and Max hits the wall with a mallet, giving a single beat each time the movement takes him close to it. In the breaks between Max’s beats, Karin sings and beats a small rhythmic motif on the wall. In later sessions, she holds a drum in her hand that

they take turns playing small rhythmic motifs while Max continues to swing back and forth in the hammock. Now he has begun to sing the same small motifs that he plays.

Schumacher (1994) calls this type of interaction Playform [Spielform], which she defines as repeated interaction developed from session to session between child and therapist. She works deliberately towards creating a Playform with each child, by starting with the child's "interest," which, for an autistic child, can be a certain movement pattern or way of handling an instrument. Despite the often idiosyncratic character of the Playforms, Schumacher is very conscious of giving them a clear and recognisable form, because their primary function is to bring about something that can be repeated, *so that it gradually creates a memory in the child that appears as expectation of what is going to happen* (Schumacher, 1994, 1999).

It appears that there are many similarities between these Playforms and my concept, just as the above example with Max clearly is an Interaction Theme. The biggest difference, however, is that Schumacher in her concept *includes* more types of interaction than I do in mine. She describes, for example, a Playform in the early sessions with Max where he is rolling on the floor in a plastic cone. In contrast I stress in point 1 (table 2), that an Interaction Theme is built around a *musical figure* that the child actively helps to create. The case with Max shows that the Playforms become more musical, but as a starting point her concept is more inclusive than mine.

That the child and adult create a joint interaction history together (my point 2) is very clearly illuminated by Schumacher (1999), who further connects the development of repeated Playforms with the development of a core self and self-history, according to Stern (1985). Schumacher stresses the connection between Playform, recognition, expectation, and the possibility of developing interaction around theme-and-variation. The idea of developing a Playform together with the child is to build something that

can be expected, that they both can return to (point A).

According to Schumacher, the development of a Playform shows in itself an increased social competence in a child, but, at the same time, it is a "practice field" for social interactions. The case of Max shows clearly that he becomes gradually better at helping to keep the interaction going (point B). Schumacher points out further that the Playform makes it easier for the therapist to read and attune to the child's actions, but she doesn't mention that the Playform as a common frame for interaction also can make it easier for the child to understand the therapist's actions as meaningful.

Besides the specific differences between Schumacher's and my concept (point 1), the points of agreement on the significance or function of jointly created repeated interaction sequences are evident (point 2, A and B). However, theoretically the phenomenon is seen in different contexts, as Schumacher emphasises Stern's (1985) theory on the self, while I emphasise a communication theory perspective with a common frame of understanding as a prerequisite for meaningful exchange. Thus I look more at the *function* as such, and I do not assume in my definition that development of an Interaction Theme necessarily points to a general self-development of the child. Despite this difference, the description of the clinical phenomenon as such is very similar, which has been confirmed by Karin Schumacher (as a kind of member check).<sup>2</sup>

### **Related Concepts in the Music Therapy Literature**

The Edward and Max cases show that it is possible to find very clear examples of Interaction Themes in the music therapy literature. In the remaining case literature, as mentioned in the introduction, many descriptions can be found of repeated interaction forms in improvisatory music therapy with children. These can, to a greater or lesser degree, be conceptualized as Interaction Themes, although they seldom are described in as great detail as the Edward and Max cases including audio and video examples. In the following, parts

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<sup>2</sup> At the 4th European Congress, 1998, Leuven, Belgium.

# INTERACTION THEMES IN MUSIC THERAPY – DEFINITION AND DELIMITATION

Author	Client Group	Name of Phenomenon	Pt. 1 <sup>a</sup> (Music/Movement) <sup>b</sup>	Pt. 2 <sup>c</sup>	Pt. A	Pt. B <sup>d</sup>
Agrotou (1988, 1993)	Ment. retardation and/or severe autistic features	Co-active episodes, ritualised play	X / X	X	X	X
Alvin (1978)	Autism (primarily)	Signature tune	X / x	X	X	
Brown (1994)	Autism	-	X /	X	(X)	X
Bunt (1994)	Children with functional limitations, including autism	Leitmotif, musical events	X /	X <sup>History</sup>	X	X <sup>Mutual</sup>
Lecourt (1991)	Autistic features	Sound game	x / X	X	X	
Nordoff and Robbins (1971, 1977) Aigen (1998)	Children with functional limitations, including autism	Musical game, theme, song and working motif, signature pattern	X / x	X	X	X
Oldfield (1995, 2001)	Autism and/or communication disorders	-	X / X	X	X	
Pavlicevic (1997)	General – all clients	Invariants, reference point	X /	X	X	(X)
Robarts (1998)	Autism	-	X / x	(X)	X	X
Schumacher (1994, 1999)	Autism (primarily)	Playform [Spielform]	x / X (start) X / X (later)	X <sup>History</sup>	X	X

<sup>a</sup> Points 1, 2, A and B refer to the four characteristics of Interaction Themes in table 2. Markings indicate *my assessment* of whether the author describes something that wholly or partially matches my description of Interaction Themes.

The parentheses indicate that the characteristic is described only partially in the literature referred to. It is possible that the author addresses these issues in other writings.

<sup>b</sup> The divided markings show whether both music and movement (gesture or facial expression) are included in the description of the repeated interaction form, and relatively how much weight the two modalities have in the description – indicated with a large or small x.

<sup>c</sup> Point 2 indicates that the authors describe the development of a common interaction form, and if they also explicitly stress the significance of the historical aspect, this is indicated X<sup>History</sup>.

<sup>d</sup> X<sup>Mutual</sup> indicates that the author not only suggests that the interaction form makes it easier for the therapist to understand the child's actions as meaningful, but also that this could be the case for the child regarding the therapist.

**Table 3:** Music therapy literature that refers to repeated interaction forms that resemble Interaction Themes.

of this case literature will be discussed. I have only included literature that discusses the meaning of repeated forms or motifs, corresponding with point 2, A and/or B in my definition of Interaction Themes (table 2).

Table 3 presents examples of the phenomenon (1) through a simple, thoroughly described case (Agrotou, 1988; Lecourt, 1991; Bunt, 1994; Schumacher, 1994; Robarts, 1998), (2) through several comparable cases (Nordoff & Robbins, 1977; Alvin, 1978; Brown, 1994; Oldfield, 2001), and/or (3) through theoretical reflection connected to case-vignettes (Aigen, 1998; Bunt, 1994; Pavlicevic, 1997; Robarts, 1998; Schumacher, 1999).

Most of the music therapists mentioned describe the development of specific musical figures that are repeated and used with a particular child. In a case with a hearing-impaired boy, Bunt (1994, pp. 83-97) describes how they create musical games together that gradually evolve into a whole series of Musical Events. Bunt (1994) and Wigram (1997) both use the idea of Leitmotif – a concept similar to Alvin's (1978) Signature Tune, that refers to short rhythmic motifs that are characteristic for each child's playing. Correspondingly, Brown (1994), Oldfield (1995, 2001) and Robarts (1998) describe (without naming the phenomenon) the development of recognisable musical motifs in cases with autistic children and youths.

On the more general level, Pavlicevic (1997) points out that many clients create their own (often idiosyncratic) invariant musical structures and often also common invariant structures with the music therapist. Moreover, improvisations can start from (and return to) a so-called Point of Reference, that can be a musical structure, a motif, or a mood.

For other music therapists, it is not a specific motif, but rather a musical playing rule (a 'given') that makes up the repeated interaction form. Agrotou (1988) describes a case with returning Co-active Episodes of musical turn interaction and in a later article Agrotou (1993) compares these Co-active Episodes with ritualised play. Correspondingly, Lecourt (1991) describes the development of different Sound Games, in a case

where the dominant 'move' was alternation.

As seen above, the development of simple repeated interaction sequences in music therapy with children with severe functional limitations, especially with severe autism, is a widespread phenomenon in improvisational music therapy (point 1). The predominance of examples from the autistic spectrum may have to do with the fact that this area generally dominates the child music therapy literature. It can also be due to the fact that development of Interaction Themes takes longer and is more significant in music therapy with severely autistic children, and therefore is described more than in other cases. However, I would be inclined to believe that Interaction Themes are found in improvisational music therapy with different client types within the group of children (and adults) with severe functional limitations. This is, however, an area for further research.

The above-mentioned authors differ as to whether or not they emphasise the historical aspect (point 2), or have considered the meaning of developing a repeated interaction form (points A and B). Generally, music therapists with many years of experience with the same client group discuss the phenomenon the most, no doubt because comparison across different cases inevitably arises over time. Karin Schumacher describes the phenomenon most clearly. However, none of the authors include other clinical examples from music therapy literature to generalise the phenomenon beyond their own practice.

But, as shown here in the review of the literature, Interaction Themes as clinical phenomena in music therapy can be generalised across time (forty years), place (countries) and persons (children of different ages and diagnoses, and music therapists with a western cultural background but different educational backgrounds).

When comparing case literature within this client group that contains musical notation of the child's playing (Nordoff & Robbins, 1977; Alvin, 1978; Birkeback & Winther, 1985; Agrotou, 1988; Friis, 1993; Brown, 1994; Howat, 1995; Oldfield, 1995; Schumacher, 1999), it becomes noticeable how similar the motifs are to each other, and how

similar they are to the Interaction Themes found in the material on Karsten, Mikkel and Eigil, described in the beginning of the article. In light of this, it can be concluded that Interaction Themes with these children often come to consist of 1) accompaniment to jumping or swinging, 2) sudden breaks, 3) turn interaction, 4) instrumental rhythmic motifs, and 5) vocal 3-note motifs, sometimes ending on an accent. However, the Interaction Theme with my third subject, Mette, is exceptional; stroking each other's cheek/hair while making prosodic legato vocal sounds will never be typical music therapy interaction.

Although interaction with these children often develops similar characteristics with different children, it is important to stress the fact that the particular Interaction Theme is developed locally between child and music therapist. Many of these children have difficulties learning external interaction structures, which is why the music therapist must use the child's own expressions as a starting point, and gradually give them form, so that they can be used interactively. (That this 'form-giving' bears the mark of the therapist, and thus has a cultural or conventional form, is shown by the similarities between the many Interaction Themes.)

#### **Delimitation of the Interaction Theme as a Clinical Phenomenon**

When introducing a new concept which describes a phenomenon that clearly is a typical occurrence in improvisational music therapy with children with communicative difficulties, it is natural to ask oneself, what isn't an Interaction Theme? And, even more relevant, when is the development of Interaction Themes, as defined here, not relevant in clinical work?

In the description of the four characteristics of Interaction Themes, they are seen as simple musical figures, repeated over and over again with small variations. This means that more sophisticated referential use of music cannot be seen as Interaction Themes as described here. With more well-functioning children, the development of a joint interaction history may

not be *necessary* to be at all able to read each other's actions as meaningful (point A), just as it might not be a problem to perceive each other's cues in order to keep the interaction chain continuing (point B). As seen earlier, it is with clients who have the greatest communicative difficulties that these simple musical figures are described as significant in the case literature. But even staying with this client group, development of Interaction Themes is not something to be taken for granted. Either because the therapist doesn't use improvisation (point 2), or because creating an Interaction Theme does not seem relevant or isn't possible in the clinical work.

Regarding the development of hypotheses, Lincoln and Guba (1985) mention *negative case analysis* as a method with which to test how well the preliminary analysis results match the data material. Intrigued by this, I reviewed my data material and found an example of this from the fifth subject of the study; *Mathias*. He is a 4-year-old boy with general mental retardation, as well as an attention disorder similar to severe DAMP.<sup>3</sup> His receptive language (understanding) is on a 2-year-old's level, while his expressive language skills are somewhat better.

As early as the 5th session, Mathias reacted much more quickly and adequately to the sudden break than Mikkel (described above). On the other hand, Mathias seldom could hold his attention to one thing for more than one minute at a time, often only 10-20 seconds. With his extensive attention disorder Mathias was distracted by even very small variations. At the same time; simple activities bored him. This combination made the development of an Interaction Theme impossible (points 1 and 2). On the other hand, when the music therapist played a familiar children's song, Mathias sang along enthusiastically and it could (almost) hold his attention throughout all the verses.

Although Mathias's language abilities didn't correspond to his age, they were much better than those of the other children, because he could express himself meaningfully within the context. In this connection, it is interesting that both Mette

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<sup>3</sup> Deficits in Attention, Motor control and Perception (combined Motor Perception Dysfunction and Attention Deficit Disorder).

and Eigil's therapists reported that the children lost interest in the Interaction Themes as they became more interested in singing children's songs. Compared to the music therapy literature, this suggests a developmental axis from response-evoking techniques, to creating Interaction Themes and possibly further to participation in the conventional forms and narratives of songs. Some children move through this whole axis during the course of music therapy (as Mette and Eigil), while others get as far as the Interaction Theme, which is then developed and refined (Karsten and Mikkil, Edward and Max). Still others start with songs or other more conventional musical activities.

This puts Interaction Themes into a developmental psychology perspective – not in regards to actual age but rather developmental age, and thus verbal-symbolic capacity.<sup>4</sup> If it is possible to use conventional interaction structures, such as songs, music games, playing rules, etc, there is (probably) no reason to create an Interaction Theme. The child is already able to participate in a common (symbolic) world of meaning. However, for children who have difficulties grasping communicative intentionality and, even more, for making themselves understood, the creation of an Interaction Theme can be the only way of creating a joint frame for interaction. Because the child himself contributes to the interaction, no matter how idiosyncratic this contribution may seem, the Interaction Theme makes it possible to develop this particular child's basic social and communicative abilities.

## Conclusion

As it has been shown, it is possible to define and delimit Interaction Themes as a specific type of music therapy interaction with children with severe communicative difficulties. Interaction Themes as a phenomenon can be generalised across time (forty years), place (countries with a western culture) and individuals (children with different diagnoses, music therapists with different

educational and cultural backgrounds).

In the empirical material that was the basis for my research there was a predominance of Interaction Themes in work with children within the autistic spectrum. This pattern is repeated in the case literature, which can be due to this area's predominance in child music therapy literature. Another possible explanation is that the development of Interaction Themes takes longer and has more significance in music therapy with severely autistic children, and therefore is described more often than in cases of children having fewer communicative difficulties. After having become acquainted with the phenomenon, several of the music therapists involved reported that Interaction Themes often occur in music therapy with non-autistic children, showing that this area needs further research. The generalisation of this concept to different populations is therefore important to consider, for example in music therapy with adults with different types of communicative difficulties, where undoubtedly Interaction Themes (as defined above) will also emerge in therapy process.

Through the four characteristics, I have defined and delimited Interaction Themes as a phenomenon. Further, the negative case analysis shows the delimitations of Interaction Themes and puts them into a developmental psychology perspective. Thus, for two of the children in the empirical material, Interaction Themes only appear in a *phase* until the children start to show interest in songs and their narratives, while for others they form the basis of the therapy. With a larger client group it could be interesting to investigate this further, and, for example, see what characterises transitions between these phases.

In conclusion, I will comment on the process of discovering Interaction Themes, as well as the case literature review, which gives the impression of a much more well-documented and explicit phenomenon than is actually the case.

My interviews with the music therapists during member checking showed that these therapists, prior to my research, weren't aware of Interaction

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<sup>4</sup> Because of the scope of this article a comparison of Interaction Themes with newer developmental psychology is not possible (for further reading, see Holck, 2002).

Themes as a general phenomenon, even though they knew of each other's work. On the other hand, each one of them knew, of course, in which sequences the child was most active – therefore they suggested that I place the cameras at an angle so that sequences later found to contain Interaction Themes were recorded in the best possible way! None of us were aware of this at the time of recording, but seen retrospectively, this is a kind of 'pragmatic validation' of the clinical significance of Interaction Themes. In light of this, it is interesting that it wasn't until much later in the course of my research that I discovered the presence of Interaction Themes in my own work with autistic adolescents, several years ago! My implicit experience had thus guided the research process through theory and analysis, so that the tacit knowledge was made explicit.

In the same way, the case literature reveals Interaction Themes as inevitable and, at the same time, implicit. Music therapists describe just this type of interaction because they experience it as significant. But at the same time, the *phenomenon* as such often occurs implicitly, with Schumacher's (1994) Playforms as the most important exception. The case literature reveals a lack of cross referencing in identifying the general prevalence of Interaction Themes in clinical reports. Accordingly, it was only through a more detached observation of others' music therapy sessions, that I became aware of this specific phenomenon.

When Interaction Themes are so widespread with this client group, I assume it is because of a need to create a common context for interactions, without the symbolic-semantic content that these children often don't understand. This could be a possible explanation (among several) as to why music therapy often has such a great effect on this client group. Through music it is possible to create an auditory and interactive context where the child experiences communicative actions such as turn taking, turn giving etc., possibly as a bridge to more conventional communication. These speculations of course need further research. Through the descriptions, the definition, and the delimitation in this article, I hope to have contributed to an increased awareness of the applicability of Interaction Themes in clinical

practice as well as a theoretical reflection on their potentials in music therapy.

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## References

- Agrotou, Anthi (1988). A Case Study: Lara. *British Journal of Music Therapy*, 2(1), 17-23.
- Agrotou, Anthi (1993). Spontaneous Ritualised Play in Music Therapy. In: Heal, M. & Wigram, T. (Eds.). *Music Therapy in Health Education*, pp. 175-192. London: Jessica Kingsley Publishers.
- Aigen, Kenneth (1998). *Path of Development in Nordoff-Robbins Music Therapy*. Gilsum, NH: Barcelona Publishers.
- Aldridge, David, Dagmar Gustorff & Lutz Neugebauer (1995). A Preliminary Study of Creative Music Therapy in the Treatment of Children with Developmental Delay. *The Arts in Psychotherapy*, 22(3), 189-205.
- Alvesson, Mats & Kaj Sköldböck (1994). *Tolkning och Reflektion. Vetenskapsfilosofi och Kvalitativ Metod* [Interpretation and Reflexion. Philosophy of Science and Qualitative Methodology]. Lund: Studentlitteratur.
- Alvin, Juliette (1978). *Music Therapy for the Autistic Child*. Oxford: Oxford University Press.
- Birkeback, Merete & Ulrike Winther (1985). *Musiktherapie mit Autistischen Kindern* [Music Therapy with Autistic Children].



- Beschäftigungstherapie und Rehabilitation*, 2, 113-118.
- Brown, Sandra (1994). Autism and Music Therapy - Is Change Possible, and Why Music? *British Journal of Music Therapy*, 8(1), 15-25.
- Bunt, Leslie (1994). *Music Therapy. An Art beyond Words*. London: Routledge.
- Di Franco, Gianluigi (1999). Music and Autism. Vocal Improvisation as Containment of Stereotypes. In: Wigram, T. & Backer, J. D. (Eds.): *Clinical Applications of Music Therapy in Developmental Disability, Paediatrics and Neurology*, pp. 93-118. London: Jessica Kingsley Publishers.
- Edgerton, Cindy Lu (1994). The Effect of Improvisational Music Therapy on the Communicative Behaviors of Autistic Children. *Journal of Music Therapy*, 31(1), 31-62.
- Elefant, Cochavit (2002). *Enhancing Communication in Girls with Rett Syndrome through Songs in Music Therapy*. Unpubl. Ph.D. thesis, Aalborg Universitet.
- Friis, Barbara Z. (1993). *Det indre udtryk. Dybdepsykologiske aspekter i musikterapi* [The Inner Expression. Aspects of Depth Psychology in Music Therapy]. Unpubl. Licentiat thesis, Aalborg Universitet.
- Holck, Ulla (2002). 'Kommunikalsk' samspil i musikterapi. *Kvalitative videoanalyser af musikalske og gestiske interaktioner med børn med betydelige funktionsnedsættelser, herunder børn med autisme* ['Commusical' Interplay in Music Therapy. Qualitative Video Analyses of Musical and Gestural Interactions with Children with Severe Functional Limitations, including Children with Autism]. Unpubl. Ph.D. thesis, Aalborg Universitet.
- Howat, Robin (1995). Elisabeth: A Case Study of an Autistic Child in Individual Music Therapy. In: Wigram, T., Saperston, B. & West, R. (Eds.). *The Art and Science of Music Therapy: A Handbook*, pp. 238-257. London: Harwood Academic Publishers.
- Klinger, Laura & Geraldine Dawson (1992). Facilitating Early Social and Communicative Development in Children with Autism. In: Warren, S. F. & Reichle, J. (Eds.). *Causes and Effects in Communication and Language Intervention*, pp. 157-186. Baltimore: Paul H. Brooke's Publishing.
- Lecourt, Edith (1991). Off-beat Music Therapy: A Psychoanalytic Approach. In: K. E. Bruscia (Ed.). *Case Studies in Music Therapy*, pp. 73-98. Phoenixville, PA: Barcelona Publishers.
- Lincoln, Yvonna S. & Egon G. Guba (1985). *Naturalistic Inquiry*. London: Sage Publishers.
- Littlejohn, Stephen W. (1999). *Theories of Human Communication*. Belmont, CA: Wadsworth Publishing Company.
- Müller, Pierrette & Auriel Warwick (1993). Autistic Children and Music Therapy. The Effects of Maternal Involvement in Therapy. In: Heal, M. & Wigram, T. (Eds.). *Music Therapy in Health and Education*, pp. 214-243. London: Jessica Kingsley Publishing.
- Nordoff, Paul & Clive Robbins (1971). *Therapy in Music for Handicapped Children*. London: Victor Gollancz.
- Nordoff, Paul & Clive Robbins (1977). *Creative Music Therapy. Individualized Treatment for the Handicapped Child*. New York: The John Day Company.
- Oldfield, Amelia (1995). Communicating through Music: The Balance between Following and Initiating. In: T. Wigram, B. Saperston & R. West (Eds.). *The Art and Science of Music Therapy: A Handbook*, pp. 226-237. London: Harwood Academic Publishers.
- Oldfield, Amelia (2001). Music Therapy with Young Children with Autism and their Parents. In: D. Aldridge, G. Di Franco, E. Ruud & T. Wigram (Eds.). *Music Therapy in Europe*, pp. 73-88. Rom: ISMEZ/Onlus.
- Pavlicevic, Mercedes (1997). *Music Therapy in Context. Music, Meaning and Relationship*. London: Jessica Kingsley Publishers.
- Plahl, Christine (2000). *Entwicklung fördern durch Musik. Evaluation Musiktherapeutischer Behandlung* [Development through Music. Assessment of Music Therapy Treatment] (Unpubl. Ph.D. thesis, 1999). Münster: Waxman.

- Priestley, Mary (1994). *Essays on Analytical Music Therapy*. Phoenixville, PA: Barcelona Publishers.
- Robarts, Jacqueline Z. (1998). Music Therapy for Children with Autism. In: Trevarthen, C., Aitken, K., Papuodi, D. & Robarts, J. Z. (Eds.). *Children with Autism. Diagnosis and Interventions to Meet Their Needs*, pp.172-202. London: Jessica Kingsley Publishing.
- Rogers, Sally J. (1988). Characteristics of Social Interaction between Mothers and their Disabled Infants: A Review. *Child: Care, Health and Development*, 4, 301-317.
- Ruud, Even (1990). *Musikk som kommunikasjon og samhandling* [Music as Communication and Interplay]. Oslo: Solum Forlag.
- Schuler, Adriana, Barry M. Prizant & Amy M. Wetherby (1997). Enhancing Language and Communication Development: Prelinguistic Approaches. In: Cohen, D. J. & Volkmar, F. R. (Eds.): *Handbook of Autism and Pervasive Development Disorders*, pp. 539-571. New York: John Wiley & Sons.
- Schumacher, Karin (1994). *Musiktherapie mit Autistischen Kindern* [Music Therapy with Autistic Children]. Stuttgart: Gustav Fisher Verlag.
- Schumacher, Karin (1999). *Musiktherapie und Säuglingsforschung* [Music Therapy and Infant Research]. Frankfurt am Main: Peter Lang.
- Schumacher, Karin & Claudine Calvet-Kruppa (1999). *Video: The Instrumental Expression I+II*. Berlin: The Authors and Stonehead Cut.
- Silverman, David (1994). *Interpreting Qualitative Data. Methods for Analysing Talk, Text and Interaction*. London: Sage Publishers.
- Stern, Daniel N. (1985). *The Interpersonal World of the Infant*. New York: Basic Books.
- Stern, Daniel N. (1989). The Representation of Relational Patterns: Developmental Considerations. In: Sameroff, A. J. & Emde, R. N. (Eds.). *Relationship Disturbances in Early Childhood*, pp. 52-69. New York: Basic Books.
- Wigram, Tony (1997). Musicoterapia: Estructura y flexibilidad en el proceso de musicoterapia [Music Therapy: Structure and Flexibility in the Music Therapy Process]. In: P. d. Campo (Ed.). *La Música como Proceso Humano*, pp. 171-189. Salamanca: Amarú Ediciones.
- Wigram, Tony (1999). Assessment Methods in Music Therapy: A Humanistic or Natural Science Framework? *Nordic Journal of Music Therapy*, 8(1), 7-25.